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## [4GB DDR2-667 FB-DIMMs from Transcend](#)

### *For server and home use*

One of Intel's advantages over AMD over the years was their usage of advanced memory types; it first began when Intel jumped the ledge over to DDR2 memory modules, while AMD still used DDR; then on the server business, they used Fully Buffered DIMMs, while AMD didn't. Now AMD is catching up to Intel, as they have crossed all their product line on the DDR2 road and now they are even considering FB-DIMMs as an alternative. For both these companies' pleasure, Transcend has announced a new series of FB-DIMMs. The models are 4GB in size, 1.2 inches high and can scale up to 64 GB on Intel's 5000P/V/X series of chipsets. These modules are also compatible with IBM X3400/X3500/X3550/X3650 series, HP Proliant DL 360 G5/380 G5 series and with Dell's Precision Workstation 490/690 series. The Fully Buffered DIMMs use an Advanced Memory Buffer (AMB) which makes the connection between the memory controller and the memory module. This type of interface connects on a serial bus, unlike regular DRAM modules which use a parallel bus and allow for an increased memory bandwidth. Also the transmission of information isn't done between the memory controller and the memory module directly, but via the AMB. Also, they support simultaneous read/write cycles, a feature that isn't available on regular DRAM modules. As an increased performance ratio, comparing it to DDR2-400, there is a "theoretical" increase in throughput of 300%. Transcend's 4GB modules use 256MX4 Fine-Pitch Ball Grid Array (FBGA) chip packages with heat-spreaders. The modules are also compliant to JEDEC standards, have a ten layer PCB, support MemBIST for testing SDRAMs, have ECC and come with a lifetime warranty.